

# Treatment and rehabilitation of a Black-Capped Petrel

Stephanie Kadletz<sup>1</sup>, Stephanie Neumann<sup>1</sup>, Bryan Murphy DVM<sup>2</sup>, Michael Ruby DVM<sup>2</sup>, Emily Hollis<sup>1</sup>, Laura Packard<sup>1</sup>, and Erin Schoultz<sup>1</sup>

<sup>1</sup> Emerald Coast Wildlife Refuge, Ft Walton Beach, FL

<sup>2</sup> Murphy Veterinary Clinic, Mary Esther, FL

A black-capped petrel (*Pterodroma hasitata*) was brought into the Emerald Coast Wildlife Refuge mid-morning on Sep. 6, 2011. This is the first black-capped petrel to be in rehabilitation in the United States of America and in Florida to the best of our knowledge. The bird was retrieved two days after Tropical Storm Lee moved through the Florida Panhandle. The petrel was found on the beach approximately 100m upland from the Gulf shoreline behind Pompano Joe's restaurant in Destin Florida. It presented with severe dehydration, emaciation, and overall poor feather quality.

On arrival the petrel weighed 300 g and was roughly 8% dehydrated. For initial treatment, we gave 9 cc subcutaneous (SQ) fluids three times a day (TID) for the first 24 hours. On days two and three it received 7 cc SQ fluids TID. On day two, we began force feeding every two to three hours. This treatment began with one to two capelin (*Mallotus villosus*) that were cut into pieces. After a week of treatment the bird began to accept fish offered by tweezers, but this behavior only lasted a few days. Force feeding continued TID throughout the treatment process. On October 17, we switched its diet from capelin to smelt (*Osmerus sp*). This diet change was easier to administer and provided a more efficient process for the petrel, as it was easier for it to swallow the whole fish. It gained weight at a slow pace of about 10 g per week. After one month in care it reached a weight of 350 g and by 45 days of treatment it had increased to 405 g.

From the initial evaluation the petrel's behavior was unusual compared to other sea birds. It constantly moved its head from an upright position to a looking down position suggesting that there may be neurological damage. It was not very active and during the day would remain stationary in one spot. We believe it was more active at night when we were not present since

these petrels are nocturnal hunters. It would move away from the handlers during capture attempts, but was not aggressive in any manner. Displays of defensive pecking were only noted when being force fed or during blow-drying.

We housed the petrel in a stainless steel kennel with a mesh sling to avoid the possibility of damaging its keel by sitting on hard surfaces. Latex gloves were worn while handling to prevent our skin oils from further damaging its feathers. Once the petrel became stable, on day four we began misting it TID with salt water. We noticed the petrel's feathers were not waterproofed and we soon began treatment to address this. On advice from Dr. Erica Miller DVM from Tristate Bird Rescue, we washed the petrel in a mild dawn dish soap bath to remove any unwanted oils. During the washing process it was discovered that its oil gland was severely impacted. We expelled the gland and monitored for signs that the bird had begun to preen. Following a suggestion from Tracy Anderson of Save our Shearwaters in Hawaii, we set up a small plastic bin with drain holes cut at the water surface that allowed the oils and floating debris from feces and fish to skim off rapidly. This kept the water as oil free as possible. We eventually set up a pool with an over flow system that allowed for the removal of floating material and oils more effectively. The bath contained fresh water and was maintained at a temperature of approx. 80 degrees F. A mesh raft was placed in the water for the bird to rest on while in the pool.

We would place the petrel in the water to swim for thirty minutes to one hour per session. It usually only bathed its head by dunking it in the water and then shaking it. It would often drink while in the pool. Initially we used an ion blow dryer on the petrel after removal from the pool with the air flow going against the ventral feathers. Eventually, we set up a drying station made from a baby playpen with a mesh bottom so that the fecal material would drop through and not compromise the feathers. After the swimming sessions, we would place the petrel in the drying pen with a fan blowing through the bottom of the mesh. We placed a heat lamp above the pen to prevent the petrel from getting chilled while drying. This process was an attempt to stimulate preening behaviors, which we conducted TID most every day. Unfortunately it never showed any signs of preening while in the water, in the drying pen, or in the night holding cage.

On October 11<sup>th</sup> blood was drawn to evaluate any physiological issues with the petrel (Table 1). High AST levels suggested a liver problem. After review of the blood results, the veterinary treatment plan was to administer flageel and antibiotics. We treated the petrel with metronidazole at a dose of 50 mg/kg once a day for five days and Enrofloxacin at a dosage of 10 mg/kg twice a day for ten days.

**Table 1. Blood Values on Oct. 11**

<p><b><u>CBC:</u></b>  WBC: <math>17 \times 10^3</math>  Hct: 57%  Polychromasia: Slight</p>	<p><b><u>Differential</u></b>  Neutrophils: 13,260 (78%)  Bands: 0 (0%)  Lymphocytes: 3,740 (22%)  Monocytes, Eosinophils,  Basophils: 0 (0%)</p>	<p><b><u>Chemistries</u></b>  Total Protein: 5.1  AST (SGOT): 571  CPK: 400</p>
--	---	---

**Table 2. Blood values on Nov. 1**

<p><b><u>Chemistry</u></b>  Total Protein: 3.1  AST (SGOT): 337  CPK: 681</p>
---

After completion of the treatment regime, we re-tested for changes in blood values on November 1, 2011 (Table 2). The results showed a decrease in the AST and increase in CPK. The petrel stopped holding down any fish on Nov. 3 and started to mouth breath. It died on the morning of November 4, 2011 after 59 days of treatment and care at the Emerald Coast Wildlife Refuge.

Images of a Black-capped Petrel (*Pterodroma hasitata*) brought into the Emerald Coast Wildlife Refuge in September 2011

